Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-42 (Canceled).

43 (New). A method for reducing neuronal degeneration caused by the neurodegenerative effects of disease, or for reducing secondary neuronal degeneration that follows the primary neuronal damage of an injury, in the central or peripheral nervous system of an individual in need thereof, comprising:

causing T cells activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide to accumulate at the site of neuronal degeneration in the individual in need, thereby reducing neuronal degeneration at that site.

44 (New). A method in accordance with claim 43, wherein said Copolymer 1 or a Copolymer 1-related peptide or polypeptide is Copolymer 1.

45 (New). A method in accordance with claim 43, wherein said Copolymer 1 or a Copolymer 1-related peptide or polypeptide is a Copolymer 1-related peptide or polypeptide.

46 (New). A method in accordance with claim 43, wherein said Copolymer 1 or Copolymer 1-related peptide or polypeptide is a random copolymer that cross-reacts

functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation.

47 (New). A method in accordance with claim 46, wherein said random copolymer comprises one amino acid residue selected from each of at least three of the following groups:

(a) lysine and arginine;

(b) glutamic acid and aspartic acid;

(c) alanine and glycine; and

(d) tyrosine and tryptophan.

48 (New). A method in accordance with claim 47, wherein said random copolymer consists of four different amino acid residues, each from a different one of the groups (a) to (d).

49 (New). A method in accordance with claim 48, wherein said four different amino acid residues are alanine, glutamic acid, lysine and tyrosine.

50 (New). A method in accordance with claim 49, wherein said random copolymer consists of three different amino acid residues, each from a different one of three groups (a) to (d).

51 (New). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, alanine, and lysine.

52 (New). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, glutamic acid and lysine.

53 (New). A method in accordance with claim 50, wherein said three different amino acid residues are lysine, glutamic acid, and alanine.

54 (New). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, glutamic acid, and alanine.

55 (New). A method in accordance with claim 43, wherein the individual in need thereof is being treated post-operatively after tumor removal from or surgery on the CNS to protect CNS cells from glutamate toxicity.

56 (New). A method in accordance with claim 43, wherein said individual in need is one suffering from an injury selected from the group consisting of spinal cord injury, blunt trauma, penetrating trauma, hemorrhagic stroke, and ischemic stroke.

57 (New). A method in accordance with claim 43, wherein the individual in need is one suffering from a disease that has neurodegenerative effects.

58 (New). A method in accordance with claim 57, wherein said disease is selected from the group consisting of Diabetic neuropathy, senile dementia, Alzheimer's disease, Parkinson's Disease, facial nerve (Bell's) palsy, glaucoma, Huntington's chorea, amyotrophic lateral sclerosis, status epilepticus, non-arteritic optic neuropathy, and vitamin deficiency.

59 (New). A method in accordance with claim 43, wherein said individual in need is one suffering from epilepsy, amnesia, anxiety, hyperalgesia, psychosis, seizures, oxidative stress, or opiate tolerance and dependence.

60 (New). A method in accordance with claim 43, wherein said individual in need is suffering from an injury or disease associated with abnormally elevated intraocular pressure.

61 (New). A method in accordance with claim 43, wherein said individual in need is one suffering from an injury or disease that is other than an autoimmune disease.

62 (New). A method in accordance with claim 43, wherein said activated T cells are caused to accumulate at the site of neuronal degeneration by administering an effective amount of Copolymer 1 or a Copolymer 1-related peptide or polypeptide in such a manner as to cause a T cell

response thereto, such that T cells become activated by the Copolymer 1 or Copolymer 1-related peptide or polypeptide.

63 (Currently Amended). A method in accordance with claim 62, wherein said Copolymer 1 or a Copolymer 1-related peptide or polypeptide is Copolymer 1.

64 (New). A method in accordance with claim 62, wherein said Copolymer 1 or a Copolymer 1-related peptide or polypeptide is a Copolymer 1-related peptide or polypeptide.

65 (Currently Amended). A method in accordance with claim 62, in which said Copolymer 1 or a Copolymer 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

66 (New). A method in accordance with claim 62, wherein said Copolymer 1 Copolymer 1-related peptide or polypeptide is a random copolymer that cross-reacts functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation.

67 (New). A method in accordance with claim 66, wherein said random copolymer comprises one amino acid residue selected from each of at least three of the following groups:

(a) lysine and arginine;

(b) glutamic acid and aspartic acid;

(c) alanine and glycine; and

(d) tyrosine and tryptophan.

68 (New). A method in accordance with claim 67, wherein said random copolymer consists of four different amino acid residues, each from a different one of the groups (a) to (d).

69 (New). A method in accordance with claim 68, wherein said four different amino acid residues are alanine, glutamic acid, lysine and tyrosine.

70 (New). A method in accordance with claim 69, wherein said random copolymer consists of three different amino acid residues, each from a different one of three groups (a) to (d).

71 (New). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, alanine, and lysine.

72 (New). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, glutamic acid and lysine.

73 (New). A method in accordance with claim 70, wherein said three different amino acid residues are lysine, glutamic acid, and alanine.

74 (New). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, glutamic acid, and alanine.

75 (New). A method in accordance with claim 43, wherein said activated T cells are caused to accumulate at the site of neuronal degeneration by administering an effective amount of activated T cells that have been activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide.

76 (New). A method in accordance with claim 75, wherein said activated T cells are autologous T cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

77 (New). A method in accordance with claim 76, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

78 (New). A method in accordance with claim 76, wherein said T cells are semi-allogeneic T cells.

79 (New). A method for ameliorating the effects of an injury or disease that involves neuronal degeneration of the central or peripheral nervous system of an individual in need thereof, comprising:

causing T cells activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide to accumulate at the site of neuronal degeneration in the individual in need, thereby reducing neuronal degeneration at that site.

80 (New). A method in accordance with claim 79, wherein the individual in need thereof is being treated post-operatively after tumor removal from or surgery on the CNS, whereby the secondary neuronal degeneration caused by glutamate toxicity, following the primary neuronal damage of the surgery, is reduced.

81 (New). A method in accordance with claim 79, wherein said individual in need is one whose neuronal degeneration or secondary neuronal degeneration is caused or exacerbated by glutamate toxicity.

82 (New). A method in accordance with claim 79, wherein the individual in need is one suffering from an injury that has caused primary neuronal damage.

83 (New) A method in accordance with claim 82, wherein said injury is selected from the group consisting of spinal cord injury, blunt trauma, penetrating trauma, hemorrhagic stroke, or ischemic stroke.

84 (New) A method in accordance with claim 79, wherein the individual in need is one suffering from a disease that has neurodegenerative effects.

85 (New) A method in accordance with claim 84, wherein said disease is selected from the group consisting of diabetic neuropathy, senile dementia, Alzheimer's disease, Parkinson's Disease, facial nerve (Bell's) palsy, glaucoma, Huntington's chorea, amyotrophic lateral sclerosis, status epilepticus, non-arteritic optic neuropathy, and vitamin deficiency.

86 (New). A method in accordance with claim 79, wherein the individual in need is one suffering from epilepsy, amnesia, anxiety, hyperalgesia, psychosis, seizures, oxidative stress, or opiate tolerance and dependence.

87 (New). A method in accordance with claim 79, wherein said individual in need is one suffering from an injury or disease associated with abnormally elevated intraocular pressure.

88 (New). A method in accordance with claim 79, wherein said activated T cells are caused to accumulate at the site of neuronal degeneration by administering an effective amount of Copolymer 1 or a Copolymer 1-related peptide or polypeptide in such a manner as to cause a T cell response thereto, such that T cells become activated by the Copolymer 1 or Copolymer 1-related peptide or polypeptide.

89 (New). A method in accordance with claim 88, in which said Copolymer 1 or Copolymer 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

90 (New). A method in accordance with claim 79, wherein said activated T cells are caused to accumulate at the site of neuronal degeneration by administering an effective amount of activated T cells that have been activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide.

91 (New). A method in accordance with claim 90, wherein said activated T cells specific to Copolymer 1 or Copolymer 1-related peptide or polypeptide are autologous T cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

92 (New). A method in accordance with claim 91, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

93 (New). A method in accordance with claim 91, wherein said T cells are semi-allogeneic T cells.